E/ECE/324
E/ECE/TRANS/505 } Rev.1/Add.16/Rev.3/Amend.3

4 November 1998

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF THESE PRESCRIPTIONS*/

(Revision 2, including the amendments entered into force on 16 October 1995)

Addendum 16: Regulation No. 17

Revision 3 - Amendment 3

Incorporating:

06 series of amendments - Date of entry into force: 18 January 1998
07 series of amendments - Date of entry into force: 6 August 1998

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO THE SEATS, THEIR ANCHORAGES AND ANY HEAD RESTRAINTS

UNITED NATIONS

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*/ Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

GE.98-23791

Insert in the "CONTENTS" the headline of a new annex 9, to read:

"Annex 9: Test procedure for devices intended to protect the occupants against displacement of luggage"

Paragraph 1, amend to read (including footnotes 1/ and 2/ pertinent to this paragraph):

"1. SCOPE

This Regulation applies to the strength of the seats and their anchorages, whether or not fitted with head restraints, to the design of rear parts of seat-backs 2/, to the characteristics of head restraints and to devices intended to protect the occupants from the danger resulting from the displacement of luggage in a frontal impact, of vehicles of category M1 1/. It does not apply to folding, side-facing or rearward-facing seats, or to any head restraint fitted to these seats.

1/ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), annex 7 (document TRANS/WP.29/78/Rev.1).

2/ The rear parts of seat-backs of vehicles of category M1 are considered to comply with the provisions of paragraphs 5.1.3. and 5.1.4. of this Regulation provided they comply with the provisions of Regulation No. 21 "Uniform Provisions concerning the Approval of Vehicles with regard to their Interior Fittings" (E/ECE/324-E/ECE/TRANS/505/Rev.1/Add.20/Rev.2)."

Insert a new paragraph 2.15., to read:

"2.15. "Partitioning system" means parts or devices which, in addition to the seat backs, are intended to protect the occupants from displaced luggage; in particular, a partitioning system may be constituted by netting or wire mesh located above the level of the seat backs in their upright or folded down position."

Insert a new paragraph 3.2.1.1., to read:

"3.2.1.1. A detailed description and/or drawings of the partitioning system, if applicable."

Paragraph 3.4., should be deleted.

Paragraph 4.2., amend to read:

".... Its first two digits (at present 07, corresponding to the 07 series of amendments) shall indicate the series ...."

Paragraph 4.4.1. , footnote 3/, amend to read:

"..... 24 for Ireland, 25 for Croatia, 26 for Slovenia, 27 for Slovakia, 28 for Belarus, 29 for Estonia, 30 (vacant), 31 for Bosnia and Herzegovina, 32-36 (vacant), 37 for Turkey, 38-39 (vacant), 40 for The former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Community (Approvals are granted by its Member States using their respective ECE symbol) and 43 for Japan. Subsequent numbers ..... to the Agreement Concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, ..."

Paragraph 5.1., amend to read:

"5.1. General requirements applicable to all seats of vehicles of category M1"

Paragraph 5.1.6., amend to read:

"5.1.6. No release of the locking systems shall occur during the tests described in paragraph 6.3. and in annex 9, paragraph 2.1."

Insert new paragraphs 5.2. to 5.3.2., to read:

"5.2. General specifications applicable to seats of vehicles of categories N1, N2 and N3 and to seats of vehicles of categories M2 and M3 not covered by Regulation No. 80

5.2.1. Seats and bench seats must be firmly attached to the vehicle.

5.2.2. Sliding seats and bench seats must be automatically lockable in all the positions provided.

5.2.3. Adjustable seat backs must be lockable in all the positions provided.

5.2.4. All seats which can be tipped forward or have fold-on backs must lock automatically in the normal position.

5.3. Mounting of head restraints

5.3.1. A head restraint shall be mounted on every outboard front seat in every vehicle of category M1. Seats fitted with head restraints, intended for fitment in other seating positions and in other categories of vehicles may also be approved to this Regulation.

5.3.2. A head restraint shall be mounted on every outboard front seat in every vehicle of category M2 with a maximum mass not exceeding 3500 kg and of category N1; head restraints mounted in such

vehicles shall comply with the requirements of Regulation No. 25, as amended by the 03 series of amendments."

Paragraphs 5.2. to 5.2.3., renumber as paragraphs 5.4. to 5.4.3.

Paragraph 5.2.4., renumber as paragraph 5.4.4. and amend the reference to "paragraphs 5.2.2. and 5.2.3. above" to read "paragraphs 5.4.2. and 5.4.3. above".

Paragraph 5.2.5., renumber as paragraph 5.4.5.

Paragraph 5.2.6., renumber as paragraph 5.4.6. and amend the reference to "paragraph 5.2.2. above" to read "paragraph 5.4.2. above"

Paragraphs 5.3.1. to 5.3.3.4., renumber as paragraphs 5.5.1. to 5.5.3.4.

Paragraph 5.3.4., renumber as paragraph 5.5.4. and amend the reference to "paragraphs 5.3.2. and 5.3.3.1. above" to read "paragraphs 5.5.2. and 5.5.3.1. above" and the reference to "paragraph 5.3.3.2. above" to read "paragraph 5.5.3.2. above".

Paragraph 5.3.5., renumber as paragraph 5.5.5. and amend the reference to "paragraphs 5.3.2. and 5.3.3.1. above" to read "paragraphs 5.5.2. and 5.5.3.1. above".

Paragraph 5.4., renumber as paragraph 5.6. and amend the reference to "paragraphs 5.1.3. and 5.2.2. above" to read "paragraphs 5.1.3. and 5.4.2. above".

Paragraphs 5.4.1. and 5.5., renumber as paragraphs 5.6.1. and 5.7.

Paragraphs 5.6. and 5.7., renumber as paragraphs 5.8. and 5.9. and amend the references to "paragraph 5.9. below" to read "paragraph 5.11. below" (twice).

Paragraphs 5.8. to 5.12., renumber as paragraphs 5.10. to 5.14.

Insert new paragraphs 5.15. to 5.15.4., to read:

"5.15. Special requirements regarding the protection of occupants from displaced luggage.

5.15.1. Seat backs

Seat backs and/or headrests located such that they constitute the forward boundary of the luggage compartment, all seats being in place and in the normal position of use as indicated by the manufacturer, shall have sufficient strength to protect the occupants from displaced luggage in a frontal impact. This requirement is deemed to be met if, during and after the test described in annex 9, the seat backs remain in position and the locking mechanisms remain in place. However, the deformation of the seat backs and their fastenings during the test is permitted,

provided that the forward contour of the tested seat back and/or head restraint does not move forward of a transverse vertical plane which passes through a point of 150 mm forward of the R-point of the seat in question, excluding the rebound phase(s) of the test blocks. All measurements shall be taken in the longitudinal median plane of the corresponding seat or seating position for each seating position constituting the forward boundary of the luggage compartment. In case of head restraint systems the measurements of the forward contour shall be taken for all rigid parts according to the provisions of paragraph 5.1.4.3. of this Regulation.

During the test described in annex 9, the test blocks shall remain behind the seat back(s) in question.

5.15.2. Partitioning systems

At the request of the vehicle manufacturer, the test described in annex 9 may be carried out with the partitioning systems in place, if these systems are fitted as standard equipment for the particular type of vehicle.
Partitioning systems, netting wire mesh located above the seat backs in their normal position of use, shall be tested according to paragraph 2.2. of annex 9.

This requirement is deemed to be met if, during the test, the partitioning systems remain in position. However, the deformation of the partitioning systems during the test is permitted, provided that the forward contour of the partitioning system (including the tested seat back(s) and/or head restraint(s)) does not move forward of a transverse vertical plane which passes through a point(s) of 150 mm forward of the R-point(s) of the seat(s) in question. All measurements shall be taken in the longitudinal median plane of the corresponding seat or seating position for each seating position constituting the forward boundary of the luggage compartment.

After the test, no sharp or rough edges likely to increase the danger or severity of injuries of the occupants shall be present.

5.15.3. Head restraints

Head restraints fitted as standard equipment for the particular type of vehicle shall be considered as part of the partitioning system during the tests described in annex 9.

5.15.4. The requirements mentioned in paragraphs 5.13.1. and 5.13.2. above shall not apply to luggage retention systems which are activated automatically in case of an impact. The manufacturer shall demonstrate to the satisfaction of the technical service that the protection offered by such systems is equivalent to that described in paragraphs 5.15.1. and 5.15.2."

Paragraph 6.3.1., amend to read:

"..... in accordance with the requirements of annex 7, paragraph 1. At the request of the manufacturer the test pulse described in annex 9 - appendix, may be used alternatively."

Paragraph 6.4.3.3.2., amend the reference to "paragraphs 5.6. and 5.7. above" to read "paragraphs 5.8. and 5.9. above".

Paragraph 6.4.3.5., amend the reference to "paragraph 5.9. above" to read "paragraph 5.11. above".

Paragraph 6.5.4., amend the reference to "paragraph 5.3. above" to read "paragraph 5.5. above".

Paragraph 6.6.2., amend the reference to "paragraph 5.8. above" to read "paragraph 5.10. above".

Paragraph 6.7.3., amend the reference to "paragraphs 5.6. and 5.7. above" to read "paragraphs 5.8. and 5.9. above".

Paragraph 7., amend to read:

"7. CONFORMITY OF PRODUCTION

The conformity of production procedures shall comply with those set out in the Agreement, appendix 2 (E/ECE/324-E/ECE/TRANS/505/Rev.2), with the following requirements:"

Paragraphs 7.2. to 7.3.5., should be deleted:

Paragraph 7.4., renumber as paragraph 7.2.

Paragraph 7.5., should be deleted.

Paragraphs 13. to 13.3., replace by the following text (paras. 13. to 13.6.):

"13. TRANSITIONAL PROVISIONS

13.1. As from the official date of entry into force of the 06 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approvals under this Regulation as amended by the 06 series of amendments.

13.2. As from the sixtieth day after the entry into force of the 06 series of amendments to this Regulation, Contracting Parties applying this Regulation shall grant ECE approvals only if the requirements of this Regulation, as amended by the 06 series of amendments, are satisfied.

13.3. As from 1 October 1999, Contracting Parties applying this Regulation may refuse to recognize approvals which were not granted in accordance with the 06 series of amendments to this Regulation.

13.4. As from the official date of entry into force of the 07 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approvals under this Regulation as amended by the 07 series of amendments.

13.5. As from 24 months after the date of entry into force of the 07 series of amendments, Contracting Parties applying this Regulation shall grant ECE approval only if the vehicle type to be approved complies with the requirements of this Regulation as amended by the 07 series of amendments.

13.6. As from 48 months after the date of entry into force of the 07 series of amendments, existing approvals to this Regulation shall cease to be valid, except in the case of vehicle types which comply with the requirements of this Regulation as amended by the 07 series of amendments."

Annex 1, "Communication form"

Item 7,

"7. Description of the adjustment, displacement and locking systems of the seat or of its parts and a description of occupant protection system against displacement of luggage . . . . . .
. . . . . ."

Item 21, add at the end the following text:

"... and of additional occupant protection system against displacement of luggage."

Annex 2, in the examples of the approval marks and in the captions below amend the approval number "042439" to read "072439" (six times) and the words "04 series of amendments to read "07 series of amendments" (four times).

Insert a new annex 9, to read:

"Annex 9

TEST PROCEDURE FOR DEVICES INTENDED TO PROTECT THE OCCUPANTS AGAINST DISPLACEMENT OF LUGGAGE

1. Test blocks

Rigid blocks, with the centre of inertia in the geometric centre.

Type 1

Dimensions:	300 mm x 300 mm x 300 mm all edges and corners rounded to 20 mm
Mass:	18 kg

Type 2

Dimensions:	500 mm x 350 mm x 125 mm all edges and corners rounded to 20 mm
Mass:	10 kg

2. Test preparation

2.1. Test of seat backs (see figure 1)

2.1.1. General requirements

2.1.1.1. Two type 1 test blocks shall be placed on the floor of the luggage compartment. In order to determine the location of the test blocks in the longitudinal direction, they shall first be positioned such that their front side contacts that part of the vehicle which constitutes the forward boundary of the luggage compartment and that their lower side rests on the floor of the luggage compartment. They shall then be moved backwards and parallel to the longitudinal median plane of the vehicle until their geometrical centre has traversed a horizontal distance of 200 mm. If the dimensions of the luggage compartment do not allow a distance of 200 mm and if the rear seats are horizontally adjustable, these seats shall be moved forward to the limit of the adjustment range intended for normal occupant use, or to the position resulting in a distance of 200 mm, whichever is less. In other cases, the test blocks shall be placed as far as possible behind the rear seats. The distance between the longitudinal median plane of the vehicle and the inward facing side of each test block shall be 25 mm to obtain a distance of 50 mm between both blocks.

2.1.1.2. During the test, the seats must be adjusted to ensure that the locking system cannot be released by external factors. If applicable, the seats shall be adjusted as follows:

The longitudinal adjustment shall be secured one notch or 10 mm in front of the rearmost possible position of use specified by the manufacturer (for seats with independent vertical adjustment, the cushion shall be placed to its lowest possible position). The test shall be carried out with the seat backs in their normal position of use.

2.1.1.3. If the seat back is fitted with a headrest, the test must be carried out with the headrest placed in the highest position, if adjustable.

2.1.1.4. If the back(s) of the rear seat(s) can be folded down, they shall be secured in their upright normal position by the standard locking mechanism.

2.1.1.5. Seats behind which the type 1 blocks cannot be installed are exempted from this test

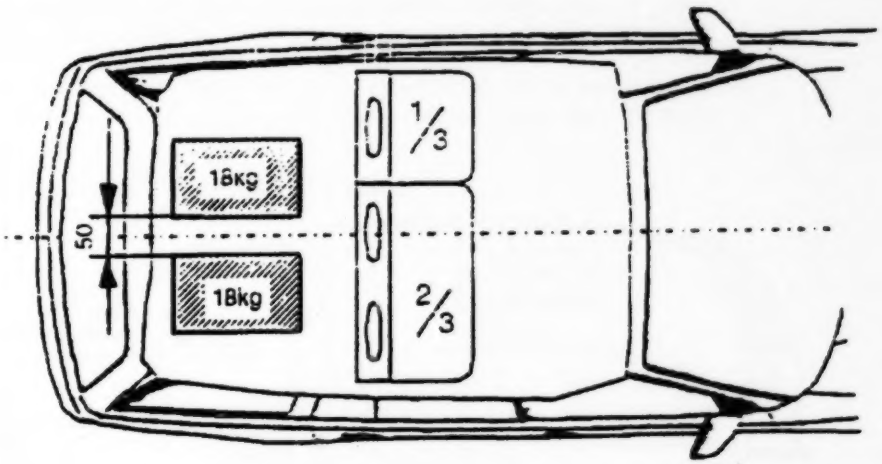


Figure 1: Positions of test blocks before test of rear seat backs

2.1.2. Vehicles with more than two rows of seats

2.1.2.1. If the rearmost row of seats is removable and/or can be folded down by the user according to the manufacturer's instructions in order to increase the luggage compartment area, then the seat row immediately in front of this rearmost row shall also be tested.

2.1.2.2. However, in this case, the Technical Service, after consultation with the manufacturer, may decide not to test one of the two rearmost rows of seats if the seats and their attachments are of similar design and if the test requirement of 200 mm is respected.

2.1.3. When there is a gap, allowing sliding of one type 1 block past the seats, then the test loads (two type 1 blocks) shall be installed behind the seats after agreement between the Technical Service and the manufacturer.

2.1.4. The exact test configuration shall be noted in the test report.

2.2. Test of partitioning systems

For the test of the partitioning systems above the seat backs, the vehicle shall be fitted with a fixed raised test floor having a load surface that locates the centre of gravity of the test block centrally between the top edge of the bordering seat back (without taking into account the headrests) and the bottom edge of the roof lining. A type 2 test block is placed on the raised test floor with its largest surface 500 x 350 mm, centrally in relation to the longitudinal axis of the vehicle and with its surface 500 x 125 mm to the front. Partitioning systems behind which the type 2 test block cannot be installed are exempted from this test. The test block is placed directly in contact with the partitioning system. In addition, two type 1 test blocks are positioned in accordance with paragraph 2.1. in order to perform a simultaneous test on the seat backs (see figure 2).

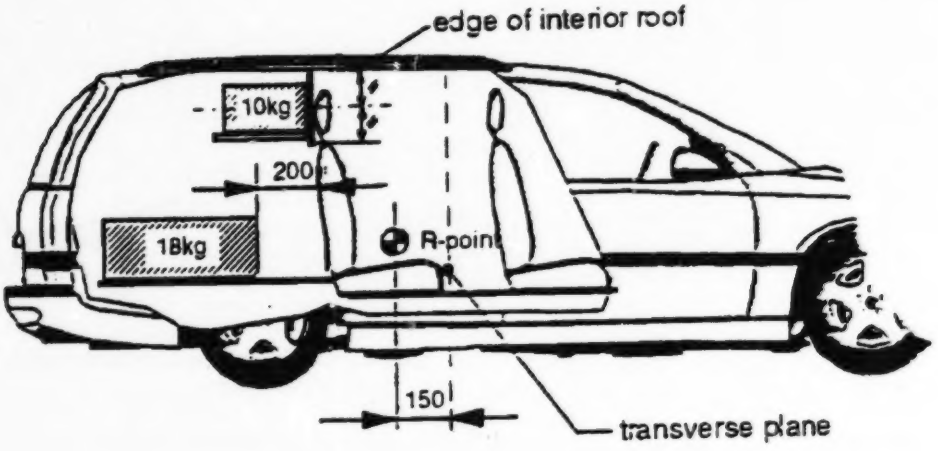


Figure 2: Testing of a partitioning system above the backrest

2.2.1. If the seat back is fitted with a headrest, the test must be carried out with the headrest placed in the highest position, if adjustable.

3. Dynamic testing of seat backs and partitioning systems used as luggage restraint systems

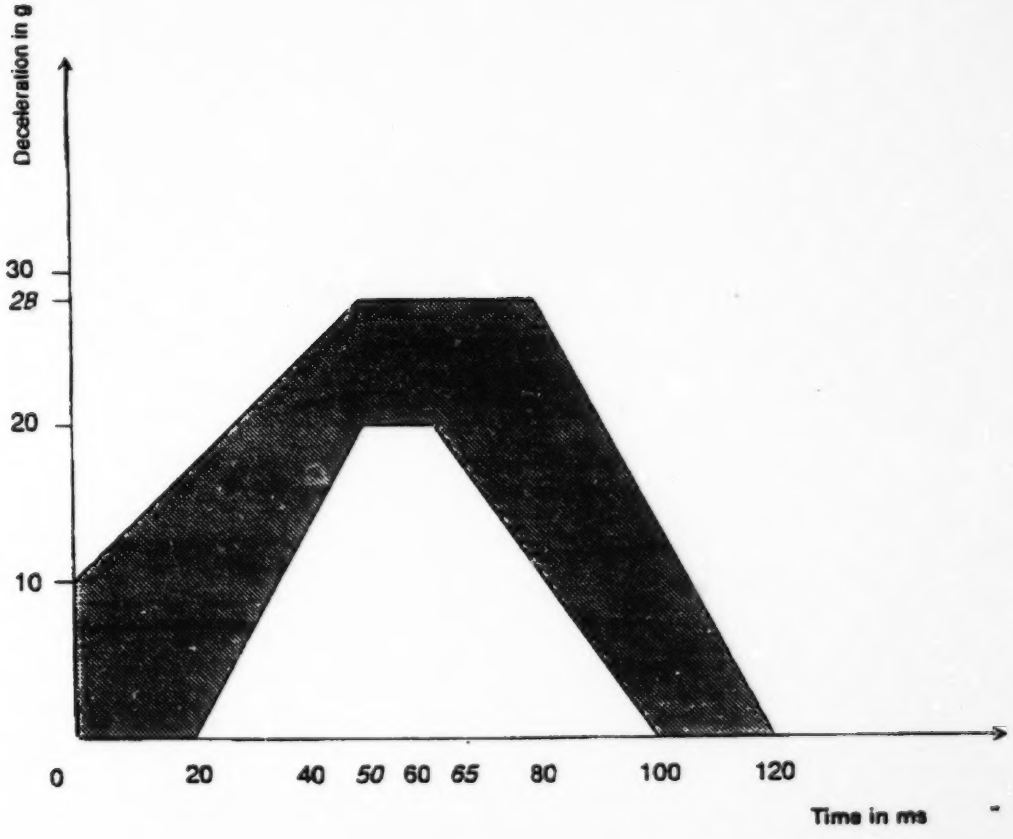
3.1. The body of the passenger car shall be anchored securely to a test sled, and this anchorage shall not act as reinforcement for seat backs and the partitioning system. After the installation of the test blocks as described in paragraph 2.1. or 2.2., the passenger

car body shall be accelerated as shown in annex 9, appendix. With the agreement of the manufacturer, the above described test pulse corridor can be used alternatively to fulfil the test of the seat strength according to paragraph 6.3.1."

Insert a new Annex 9 - Appendix, to read:

"Annex 9 - Appendix

SLED DECELERATION CORRIDOR AS A FUNCTION OF TIME
(Frontal impact)



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